

$$2b) \frac{5\sqrt{5}-2}{4+\sqrt{5}} \times \frac{4-\sqrt{5}}{4-\sqrt{5}}$$

top

$$\begin{aligned} & 20\sqrt{5} - 8 - 5\sqrt{5}^2 + 2\sqrt{5} \\ & - 5\sqrt{5}^2 + 22\sqrt{5} - 8 \\ & 22\sqrt{5} - 33 \end{aligned}$$

bottom

$$\begin{aligned} & 4^2 + 4\sqrt{5} - 4\sqrt{5} - \sqrt{5}^2 \\ & 16 - \cancel{4\sqrt{5}} - 5 \\ & \cancel{4\sqrt{5}} \quad 11 \end{aligned}$$

$$= \frac{22\sqrt{5}-33}{11}$$

$$= \frac{11(2\sqrt{5}-3)}{11}$$

$$= \underline{\underline{2\sqrt{5}-3}}$$

4 marks
out of 4